DLAPRGC US LLP

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IN THE CLAIMS

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (Previously Presented): An isolated nucleic acid molecule comprising:

a sequence of nucleotides encoding an adenovirus tripartite leader (TPL), wherein the TPL-encoding sequence of nucleotides comprises: (a) first and second different TPL exons, wherein the different TPL exons are from different adenoviruses, (b) an intron between exons of said TPL, or (c) first, second and third same or different TPL exons, wherein:

at least two of the different TPL exons are from different adenoviruses; and said TPL exons are selected from the group consisting of complete TPL exon 1, complete TPL exon 2 and complete TPL exon 3.

Claims 2-3 (Cancelled)

Claim 4 (Previously Presented): The isolated nucleic acid molecule of Claim 1, wherein said intron is native adenovirus intron 1.

Claim 5 (Currently amended): [[The]]An isolated nucleic acid molecule of Claim 1 comprising:

a sequence of nucleotides encoding an adenovirus tripartite leader (TPL), wherein said TPL nucleotide sequence comprises the sequence set forth in SEQ ID NO: 32.

Claim 6 (Previously Presented): An isolated nucleic acid molecule of Claim 1, further comprising a promoter and a sequence of nucleotides that encodes an adenoviral structural protein, operatively linked to said promoter and said TPL-encoding sequence of nucleotides.

Claim 7 (Previously Presented): The isolated nucleic acid molecule of Claim 6, wherein said adenoviral structural protein is a fiber protein or a chimeric protein which includes an adenovirus fiber protein tail domain.

Claim 8 (Previously Presented): The isolated nucleic acid molecule of Claim 7, wherein said chimeric protein comprises an Ad3 head domain and an Ad5 tail domain or an Ad5 head domain and an Ad3 tail domain.

Claim 9 (Cancelled)

Claim 10 (Previously presented): An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of pDV60 (SEQ ID NO: 43), pDV67 (SEQ ID NO: 44), pDV69 (SEQ ID NO: 47), pDV80 (SEQ ID NO: 64) and pDV90 (SEQ ID NO: 65).

Claim 11(Original): An adenovirus vector complementing plasmid comprising an isolated nucleic acid molecule according to Claim 1.

Claims 12-13 (Cancelled)

Claim 14 (Currently amended): An adenovirus vector packaging cell line, comprising:

- i) a stably integrated nucleic acid molecule, comprising an adenovirus tripartite leader (TPL) nucleotide sequence, said TPL sequence comprising complete TPL exon I having the nucleotide sequence of SEQ ID NO: 32 or partial TPL exon I having the nucleotide of SEQ ID NO: 26; and
- an operatively-linked promoter and a nucleic acid sequence that encodes an adenovirus structural protein, wherein the sequence of nucleotides that encodes the TPL comprises a first TPL exon operatively linked to a complete second TPL exon operatively linked to a complete third TPL exon.

Claim 15 (Previously Presented): The cell line of Claim 14, wherein said promoter is an inducible promoter.

Claim 16 (Previously Presented): The cell line of Claim 14, wherein said adenovirus structural protein is adenovirus fiber protein or a chimeric protein which includes an adenovirus fiber protein tail domain.

Claim 17 (Previously Presented): The cell line of Claim 16, wherein said chimeric protein comprises an Ad3 head domain and an Ad5 tail domain or an Ad5 head domain and an Ad3 tail domain.

Claim 18 (Currently amended): The cell line of Claim 14, An adenovirus vector packaging cell line, comprising:

i) a stably integrated nucleic acid molecule, comprising an adenovirus tripartite
leader (TPL) nucleotide sequence, said TPL sequence comprising complete TPL exon 1 having
the nucleotide sequence of SEQ ID NO: 32 or partial TPL exon 1 having the nucleotide of SEQ
ID NO: 26; and

an operatively-linked promoter and a nucleic acid sequence that encodes an adenovirus structural protein, wherein the sequence of nucleotides that encodes the TPL comprises a first TPL exon operatively linked to a complete second TPL exon operatively linked to a complete third TPL exon, wherein said nucleic acid molecule is selected from the group consisting of pDV60 (SEQ ID NO: 43), pDV67 (SEQ ID NO: 44), pDV69 (SEQ ID NO: 47), pDV80 (SEQ ID NO: 64) and pDV90 (SEQ ID NO: 65).

Claim 19 (Cancelled)

Claim 20 (Previously Presented): The cell line of Claim 14, wherein said cell line is an epithelial cell line.

Claim 21 (Previously Presented): The cell line of Claim 14, wherein said cell line supports the production of a recombinant adenovirus vector genome by complementation of a deficient viral gene in said vector genome.

Claim 22 (Previously Presented): The cell line of Claim 21, wherein said cell line expresses an adenovirus early protein gene and a fiber gene.

Claim 23 (Previously Presented): The cell line of Claim 21, wherein deletion of a deficient viral gene is complemented by the expression of a gene under the control of an inducible promoter.

Claims 24-40 (Cancelled)

Claim 41 (Previously Presented): The method of Claim 95, wherein said nucleouide sequence that encodes an adenovirus structural protein is operatively linked to an inducible promoter.

Claims 42-46 (Cancelled)

Claim 47 (Previously Presented): The method of Claim 95, wherein the adenovirus structural protein is adenovirus fiber protein.

Claims 48-68 (Cancelled)

Claim 69 (Currently amended): [[The]]A packaging cell line of Claim 14, wherein said cell line is selected from the group consisting of 293, A549, W163, HeLa, Vero, 211, 211A and an epithclial cell line, wherein and said cell line comprises [[said]]a stably integrated nucleic acid molecule, according to Claim 14.

Claims 70-94 (Cancelled)

Claim 95 (Currently amended): A method for producing an adenovirus particle comprising:

- 1) providing a packaging cell line according to Claim 14, [[and]]
- 2) introducing into said packaging cell line a recombinant adenovirus vector genome, and
 - 3) producing said adenovirus particle.

Claim 96 (Cancelled)

Claim 97 (Currently amended): A method for producing an adenovirus particle comprising:

- 1) providing a packaging cell line according to Claim 14, wherein said nucleic acid sequence that encodes an adenovirus structural protein encodes an adenovirus fiber protein; and
- 2) introducing into said packaging cell line a recombinant adenovirus vector genome comprising exogenous gencs, and
 - 3) producing an adenovirus particle.

Claim 98 (Previously Presented): The method of Claim 95, wherein said adenovirus particle comprises a genome encoding an exogenous protein.

Claim 99 (Previously Presented): The method of Claim 95, wherein said exogenous protein is selected from a group consisting of a tumor-suppressor protein, a biologically active fragment thereof that has tumor-suppressor activity, a suicide protein and a biologically active fragment thereof that has activity as a suicide protein.

Claim 100 (Previously presented): The isolated nucleic acid molecule of Claim 7, comprising a sequence of nucleotides encoding an adenovirus tripartite leader (TPL), wherein said molecule has the nucleotide sequence is set forth in SEQ ID NO: 8.

Claim 101 (Previously presented): The isolated nucleic acid molecule of Claim 1, comprising a sequence of nucleotides encoding an adenovirus tripartite leader (TPL), wherein said molecule has the sequence of nucleotides set forth in SEQ 1D NO. 8.

Claim 102-103 (Cancelled)